IMS 15 Series — *15 Watt DC-DC Converters*

Wide input voltage ranges up to 75 V DC
1 or 2 outputs up to 48 V DC
1500 V DC I/O electric strength test voltage

LGA

- Magnetic feedback
- Short circuit protection
- Industry standard 2" x 1.6" case with 10.5 mm profile

Selection chart

Output 1		Output 2		Input voltage	Type	Options[1]
$U_{o\ nom}$ [V DC]	$I_{o\ nom}$ [mA]	$U_{o\ nom}$ [V DC]	$I_{o\ nom}$ [mA]	U_i [V DC]		
5.1	2700	-	-	14...36	24 IMS 15-05-9R	i, C, L, Z
5.1	2700	-	-	36...75	48 IMS 15-05-9R	i, C, L, Z
12	1400	-	-	14…36	24 IMS 15-12-9C	
12	1400	-	-	36…75	48 IMS 15-12-9C	
15	1120	-	-	14…36	24 IMS 15-15-9C	
15	1120	-	-	36…75	48 IMS 15-15-9C	
+5.1	1600	+3.3	1600	14...36	24 IMS 15-0503-9R	i, L, Z
+5.1	1600	+3.3	1600	36...75	48 IMS 15-0503-9R	i, L, Z
5	1400	5	1400	14...36	24 IMS 15-05-05-9	K, i, C, L, Z
5	1400	5	1400	36...75	48 IMS 15-05-05-9	K, i, C, L, Z
12	700	12	700	14...36	24 IMS 15-12-12-9	K, i, C, L, Z
12	700	12	700	36...75	48 IMS 15-12-12-9	K, i, C, L, Z
15	560	15	560	14...36	24 IMS 15-15-15-9	K, i, C, L, Z
15	560	15	560	36...75	48 IMS 15-15-15-9	K, i, C, L, Z
24	350	24	350	14...36	24 IMS 15-24-24-9	i, C, L, Z
24	350	24	350	36...75	48 IMS 15-24-24-9	i, C, L, Z

[1] For minimum order quantity and lead time contact Power-One.

Input

Input voltage range	24 IMS15	14...36 V DC
	48 IMS15	36...75 V DC

Output

Output voltage setting accuracy	$U_{i\,nom}$, 50% $I_{o\,nom}$, models with/without R	±1%/±1.5% $U_{o\,nom}$
Minimum load	recommended for double output models	10% $I_{o\,nom}$
Line/load regulation	$U_{i\,min}$...$U_{i\,max}$, 50% $I_{o\,nom}$, models R (magn. feedback)	±0.5% $U_{o\,nom}$
Line regulation	$U_{i\,min}$...$U_{i\,max}$, 50% $I_{o\,nom}$, models without R	±1% $U_{o\,nom}$
Load regulation	$U_{i\,nom}$, 10...100% $I_{o\,nom}$, models without R	±3% $U_{o\,nom}$
	tracking output, models without R	±3% $U_{o\,nom}$
Output voltage switching noise	$U_{i\,nom}$, 0...100% $I_{o\,nom}$, peak-peak, total	max. 1...1.5% $U_{o\,nom}$
Efficiency	$U_{i\,nom}$, $I_{o\,nom}$	up to typ 88%

Control and protection

Remote shut down	TTL-compatible input	disabled with ≤0.7 V
Trim input for U_o		80...105%
Magnetic feedback	standard for all single output and -0503-models	R
Input overvoltage protection	suppressor diode	
Input undervoltage lock-out		
Overload protection	$U_{i\,min}$...$U_{i\,max}$, fully protected, hiccup mode	
No-load protection	$U_{i\,min}$...$U_{i\,max}$	
Temperature protection		

Safety and EMC

Electric strength test voltage	I/O	1500 V DC
Electromagnetic interference	conducted (with external filter)	class B
	radiated	class A

Environmental

Operating ambient temperature	$U_{i\,nom}$, $I_{o\,nom}$	–40...71°C
Storage temperature	non operational	–40...100°C
Relative humidity	non condensing	93%

Options

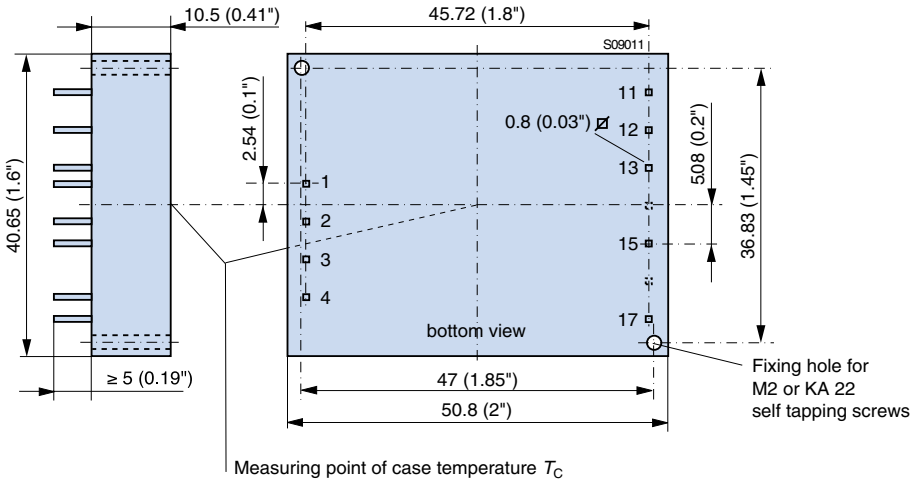
Inhibit input (reverse logic)	TTL-compatible, disabled with ≥2.4 V or open-circuit	i
Alternative pinout	connected outputs, for compatibility	K
C-pinout	connected outputs, no options possible	C
Open version	no housing, not lacquered	Z
SMD Version	with PCB LID-	L

Mechanical data

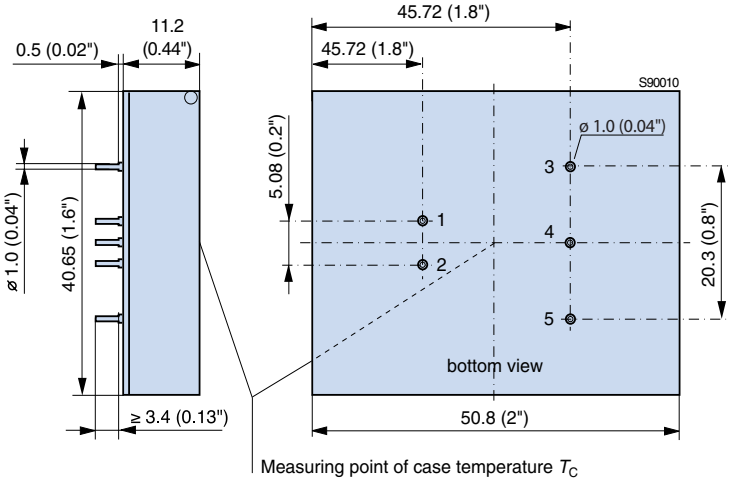
Tolerances ±0.3 mm (0.012") unless otherwise indicated.

European Projection

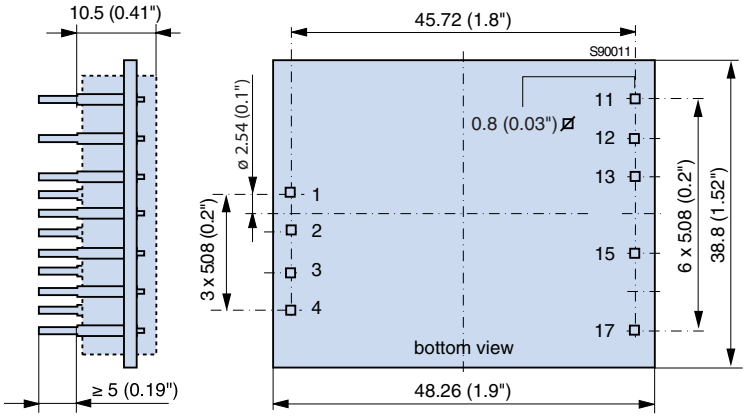
Standard and option K



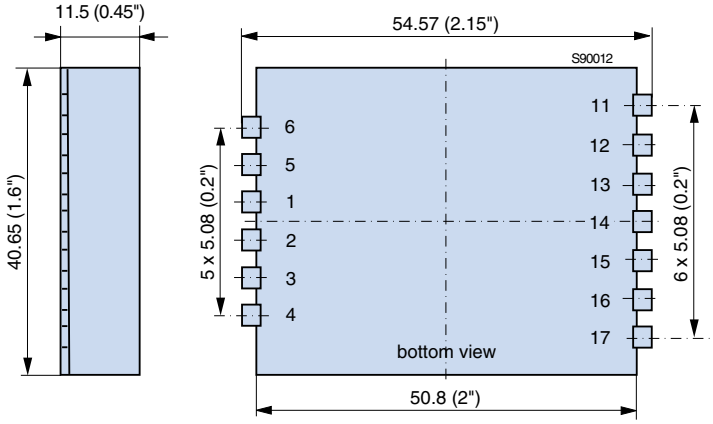
C pinout (option C)



Open frame version (option Z)



Surface Mount Version (option L)



Pin allocation

Pin	Standard			Option K	Option C		Option L and Z	
	single	double	-0503-	dual	single	dual	single	double
1	Vi+	Vi+	Vi+	Vi+	Vi+	Vi+	Vi+	Vi+
2	Vi–	Vi–	Vi–	Vi–	Vi–	Vi–	Vi–	Vi–
3	-	Trim	n.c.	-	Vo+	Vo+	n.c.	Trim
4	$\overline{SD}$	$\overline{SD}$	$\overline{SD}$	$\overline{SD}$	-	Go	$\overline{SD}$	$\overline{SD}$
5	-	-	-	-	Vo–	Vo–	n.c.	n.c.
6	-	-	-	-	-	-	n.c.	n.c.
11	-	Vo1+	Vo2+	Vo+	-	-	-	Vo1–
12	-	Vo1–	Go	-	-	-	-	Vo2–
13	Vo+	Vo2+	Vo1+	Go	-	-	Vo+	Vo1+
15	Vo–	Vo2–	Go	Vo–	-	-	Vo–	Vo2–
17	R	n.c.	R	n.c.	-	-	R	n.c.